APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/524,942	03/14/2000	David J. McDonnell	042390.P6357C	8992

7590   12/03/2002

Charles E Shemwell
Blakley Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard
7th Floor
Los Angeles, CA   90025

EXAMINER
ELMORE, REBA I

ART UNIT	PAPER NUMBER
2187	

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *14 March 2000* .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *13-44* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *13-44* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

  If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

  a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

DETAILED ACTION

1.   Claims 13-44 are presented for examination.

Specification

2.   The specification has not been checked to the extent necessary to determine the presence

of all possible minor errors. Applicant's cooperation is requested in correcting any errors of

which applicant may become aware in the specification.

35 USC 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United
> States before the invention thereof by the applicant for patent, or on an international application by another who
> has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
> thereof by the applicant for patent.

4.   Claims 13-24 and 28-44 rejected under 35 U.S.C. 102(e) as being anticipated by Martin

et al.

Martin teaches the present invention (claims 13, 23 and 37) as claimed including an

apparatus and method, the apparatus and method comprising:

a host side memory controller region having a memory access request input and a

memory command packet chunk output, a memory command packet chunk being a portion of a

memory command packet, the host side memory controller region clocked by a first clock (e.g.,

see Figure 2);

a memory side memory controller region having a memory command packet chunk input

coupled to the memory command packet chunk output, the memory side memory controller

region clocked by a second clock (e.g., see Figure 2);

the second clock different than the first clock (e.g., see Figure 2); and,

a memory coupled to the memory side region (e.g., see Figure 2).

As to claim 14, Martin teaches the memory command packet chunk output further comprises a row output and a column output (e.g., see col. 5, line 55 to col. 6, line 27).

As to claims 15 and 29, Martin teaches the host side memory controller region further comprises a scheduler coupled to the memory access request input, the scheduler configured to generate the memory command packet (e.g., see col. 5, line 55 to col. 6, line 27).

As to claims 16 and 30, Martin teaches the scheduler is coupled to a queue (e.g., see col. 5, line 55 to col. 6, line 27).

As to claims 17, 31 and 39-41, Martin teaches the memory command packet is a row command to activate a memory row by precharging the memory row (e.g., see col. 7, lines 18-31).

As to claims 18, 32 and 42-44, Martin teaches the memory command packet is a column command to read or write to/from the memory device (e.g., see col. 7, lines 18-31).

As to claims 19 and 33, Martin teaches the scheduler further comprises logic to determine when resource conflicts (e.g., see col. 5, line 55 to col. 6, line 27).

As to claims 20 and 34, Martin teaches the host side memory controller region further comprises a second memory command packet chunk output (e.g., see col. 5, line 55 to col. 6, line 27).

As to claims 21 and 35, Martin teaches the second clock is faster than the first clock (e.g., see Figure 2).

As to claims 22 and 36, Martin teaches the host side memory controller region is configured to present a second memory command packet chunk upon the second memory

command packet chunk output, the second memory command packet chunk a portion of a

second memory command packet (e.g., see col. 5, line 55 to col. 6, line 27).

As to claim 24, Martin teaches an external agent configured to read and write to the

memory via the memory controller (e.g., see col. 5, line 55 to col. 6, line 27).

As to claim 28, Martin teaches the memory command packet chunk output further comprises a

row output and a column output (e.g., see Figure 2).

35 USC 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al.

Martin teaches the independent and intervening claims as given above. Martin does not

specifically teach an external agent connected to the memory subsystem having a processor,

graphics subsystem and/or an expansion bus master, however, these types of components are

common well known elements to be connected to a memory subsystem and official notice is

taken thereof. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use an external agent having a processor, a graphics subsystem and/or an

expansion bus master because these components connected to a memory subsystem provide a

wide variety of available usability and lets a user perform even more tasks. An external agent

which would be connected to the memory subsystem would normally have a processor and a

graphics subsystem to provide flexibility which is desirable for a multitude of computer driven

activities. An expansion bus provides additional I/O support which is also desirable in computer systems.
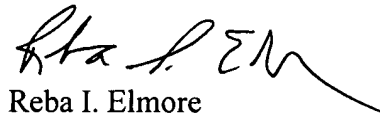
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (703) 305-9706. The examiner can normally be reached on M-TH from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2187, Do N. Yoo, can be reached for general questions concerning this application at (703) 308-4908. Additionally, the official fax phone number for the art unit is (703) 746-7239. The after-final fax phone number for the art unit is (703) 746-7238. The fax phone number for drafts or non-official communications is (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center receptionist whose telephone number is (703) 305-3800/4700.

Reba I. Elmore
Primary Patent Examiner
Art Unit 2187

December 1, 2002